

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A system, comprising:

a first session initiation protocol (SIP) proxy, configured to: support routing of communications for a first plurality of clients in a first region, wherein the communications comprise push-to-talk communications, and to store a value of a local domain for the first region;

a second SIP proxy, configured to support routing of the communications for a second plurality of clients in a second region; and

a third SIP proxy, configured to support routing of the communications between the first SIP proxy and the second SIP proxy,

wherein a first client of the first plurality of clients is configured to register with the second SIP proxy and optionally with the first SIP proxy;

wherein the first SIP proxy is further configured to: determine whether the first client is registered with the first SIP proxy, and, in response to determining that the first client is registered with the first SIP proxy:

determine whether or not a push-to-talk communication is local to the first region based on the stored value of the local domain, set up a push-to-talk communication in the first region responsive to determining the push-to-talk communication is local, and set up the push-to-talk communication in the second region responsive to determining the push-to-talk communication is not local, and wherein, in response to a determination that the first client is not registered with the first SIP proxy and is registered with the second SIP proxy, the second SIP proxy is configured to set up the push-to-talk communication in the second region.

2. (Previously Presented) The system of claim 1, wherein the first SIP proxy comprises at least two SIP proxies.

3. (Previously Presented) The system of claim 1, wherein determining the push-to-talk communication is local comprises determining that a called party specified in a request for push-to-talk communication is local.

4. (Currently Amended) The system of claim 1, wherein the at least one client in the first plurality of clients is enabled with a first user identifier and a second user identifier, wherein the first user identifier is a standard SIP uniform resource identifier and the second user identifier is a telecommunications uniform resource identifier, [[.]] and wherein the at least one client is able to use the first user identifier and the second user identifier interchangeably.

5. (Previously Presented) The system of claim 2, further comprising a push-to-talk server, wherein the push-to-talk server is operably connected to the at least two SIP proxies.

6. (Previously Presented) The system of claim 1, wherein at least some of the second plurality of clients each have a plurality of differing user identifiers and wherein, for at least one of the second plurality of clients, at least two of the plurality of differing user identifiers correspond to a same communication service.

7. (Previously Presented) The system of claim 1, wherein either the first region, the second region, or both the first region and the second region correspond to a wireless coverage area.

8. (Previously Presented) The system of claim 1, wherein a wireless coverage area as corresponds to the first region at least partially overlaps with a wireless coverage area as corresponds to the second region.

9. (Previously Presented) The system of claim 1, wherein a wireless coverage area as corresponds to the first region does not overlap with any part of a wireless coverage area as corresponds to the second region.

10. (Previously Presented) The system of claim 1, further comprising:

a fourth SIP proxy dedicated, at least in part, to supporting routing of communications for a third plurality of clients in a third region, wherein at least some of the third plurality of clients each have a plurality of differing user identifiers and wherein, for at least one of the third plurality of clients, at least two of the plurality of differing user identifiers each corresponds to a same communication service.

11. (Previously Presented) The system of claim 1, wherein the first SIP proxy is configured to support SIP compression.

12. (Previously Presented) The system of claim 11, wherein the first SIP proxy is configured to support SIP compression to thereby improve airlink utilization.

13. (Previously Presented) The system of claim 12, wherein the first SIP proxy comprises a first hop SIP proxy with respect to a given client in the first plurality of clients, wherein the given client is a push-to-talk client.

14. (Previously Presented) The system of claim 1, wherein the first SIP proxy is configured to support push-to-talk styled communications for roaming push-to-talk clients in the first region.

15. (Previously Presented) The system of claim 1, wherein the first SIP proxy is configured to support inter-region push-to-talk styled communications between push-to-talk clients that are located in different regions.

16. (Previously Presented) The system of claim 1, wherein the second SIP proxy is further configured to publish presence information about at least some of the second plurality of clients.

17. (Previously Presented) The system of claim 1, wherein the first SIP proxy is further configured to serve as a registrar for at least some of the first plurality of clients.

18. (Previously Presented) The system of claim 1, wherein the first region comprises a plurality of push-to-talk service domains each having a corresponding uniform resource identifier domain name.

19. (Previously Presented) The system of claim 1, wherein the first region comprises a first push-to-talk service domain of a push-to-talk service, wherein the push-to-talk service comprises a plurality of push-to-talk service domains that includes the first push-to-talk service domain, and wherein each of the plurality of push-to-talk service domains is configured to be identified by a corresponding uniform resource identifier domain name.

20. (Previously Presented) The system of claim 1, wherein the user identifiers for the first plurality of clients have at least one of a domain name and a sub-domain name that is distinct from any domain name and sub-domain name, respectively, as is assigned to any network component in the system.

21. (Previously Presented) The system of claim 1, wherein the first SIP proxy further comprises authentication and registration means for facilitating authentication of the first plurality of clients, wherein at least some of the first plurality of clients are push-to-talk clients.

22. (Original) The system of claim 21 wherein the authentication and registration means are further for serving as a registrar for mobile clients.

23. (Original) The system of claim 21 wherein the authentication and registration means are further for accommodating a push-to-talk client that presents either of at least two different available-to-the-client client uniform resource identifiers.

24. (Previously Presented) The system of claim 1, wherein the first SIP proxy

further comprises routing means for making routing decisions for SIP messages as are provided thereto.

25. (Original) The system of claim 24 wherein the routing means are further for facilitating routing decisions in conjunction with a directory server.

26. (Original) The system of claim 24 wherein the routing means are further for making the routing decisions for all SIP messages as are provided thereto.

27. (Previously Presented) The system of claim 1, wherein the first SIP proxy further comprises compression means for compressing and decompressing SIP traffic to and from a push-to-talk client.

28. (Previously Presented) The system of claim 1, wherein the first SIP proxy further comprises presence means for supporting presence within the system, at least in part, by use of SIP/SIMPLE messages.

29. (Currently Amended) A method for routing session initiation protocol (SIP) messages between a first client served by a first SIP proxy in a first region and a second client served by a second SIP proxy in a second region, the method comprising:

receiving, at ~~a third~~ the first SIP proxy, a SIP message from the first client, ~~via the first SIP proxy,~~ destined for the second client, wherein the SIP message is configured to facilitate a push-to-talk communication for the first client, and wherein the ~~third~~ first SIP proxy is configured to store a value of a local domain, and wherein the first client is configured to register with the second SIP proxy and optionally with the first SIP proxy;

at the first SIP proxy, in response to determining that the first client is registered with the first SIP proxy:

determining, ~~at the third SIP proxy,~~ whether or not the push-to-talk communication is local based on the stored value of the local domain, ~~[[;]]~~

responsive to determining the push-to-talk communication is not local,

determining the second SIP proxy serving the second client₁[[:]] and routing the SIP message to the second client via the second SIP proxy; and at the second SIP proxy, in response to a determination that the first client is not registered with the first SIP proxy and is registered with the second SIP proxy, routing the message to the second client.

30-32. (Cancelled)

33. (Previously Presented) The method of claim 29, wherein the first SIP proxy comprises a plurality of SIP proxies and wherein the first region comprises a plurality of push-to-talk domains and further comprising: assigning at least some of the plurality of SIP proxies to different push-to-talk domains in the plurality of push-to-talk domains.

34. (Cancelled)

35. (Previously Presented) The method of claim 29, wherein the SIP message facilitating a push-to-talk communication for the first client further comprises a SIP message facilitating a wireless push-to-talk communication for the first client.

36. (Previously Presented) The method of claim 29, wherein the SIP message facilitating a push-to-talk communication for the first client further comprises a SIP message facilitating a wireline push-to-talk communication for the first client.

37. (Previously Presented) The method of claim 29, further comprising:
in response to receiving the SIP message from the first client, automatically authenticating the first client.

38. (Previously Presented) The method of claim 37, wherein automatically authenticating the first client comprises using an authentication server.

39. (Previously Presented) The method of claim 29, further comprising:
in response to receiving the SIP message from the first client, automatically decompressing the SIP message.

40. (Previously Presented) The method of claim 29, further comprising:
compressing the SIP message from the first client to generate a compressed SIP communication.

41. (Previously Presented) The method of claim 40, further comprising sending the compressed SIP communication.

42. (Previously Presented) The method of claim 29, further comprising: in response to receiving the SIP message from the first client, automatically publishing presence information about the first client.

43. (Withdrawn) A session initiation protocol (SIP) proxy comprising:
a SIP proxy engine;
a memory operably coupled to the SIP proxy engine; and
a push-to-talk server interface to facilitate operably coupling the SIP proxy engine to a push-to-talk server, wherein the SIP proxy engine has at least a first mode of operation wherein the SIP proxy engine will facilitate a push-to-talk communication for a push-to-talk client that communicates a SIP message to the SIP proxy containing a SIP uniform resource identifier and a telecommunications uniform resource identifier for the push-to-talk client.

44. (Withdrawn) The SIP proxy of claim 43 wherein the first mode of operation further facilitates decompression of compressed SIP messages as are received from the push-to-talk client.

45. (Withdrawn) The SIP proxy of claim 43 wherein the first mode of operation

further facilitates compression of SIP messages as are transmitted to the push-to-talk client.

46. (Withdrawn) The SIP proxy of claim 43 wherein the first mode of operation further facilitates authentication and registration of the push-to-talk client.

47. (Withdrawn) The SIP proxy of claim 43 wherein the first mode of operation further facilitates making routing decisions for SIP messages as are sourced by the push-to-talk client.

48. (Withdrawn) The SIP proxy of claim 43 wherein the first mode of operation further facilitates supporting distribution of presence information regarding the push-to-talk client.

49. (Withdrawn) The SIP proxy of claim 43 wherein the first mode of operation further facilitates a roaming communication for the push-to-talk client.

50-65. (Cancelled)

66. (Currently Amended) An apparatus, comprising:

means for determining that a first client is registered at the apparatus;

means for receiving a session initiation protocol (SIP) message destined for a first client, wherein the SIP message is configured to facilitate a push-to-talk communication for the first client;

means for storing a value of a local domain;

means for, in response to the means for determining that the first client is registered at the apparatus, determining whether or not a push-to-talk communication is local based on the stored value of the local domain;

means for, in response to the means for determining that the first client is registered at the apparatus, determining a first SIP proxy serving the first client

responsive to determining the push-to-talk communication is not local; and

means for, in response to the means for determining that the first client is registered at the apparatus, routing the SIP message to the first client via the first SIP proxy.

67. (Previously Presented) The apparatus of claim 66, wherein the first SIP proxy comprises a plurality of SIP proxies, and

wherein the apparatus further comprises: means for assigning at least some of the plurality of SIP proxies to different push-to-talk domains of a plurality of push-to-talk domains.

68. (Previously Presented) The apparatus of claim 66, wherein the SIP message facilitating a push-to-talk communication for the first client is configured to facilitate a wireless push-to-talk communication for the first client.

69. (Previously Presented) The apparatus of claim 66, wherein the SIP message facilitating a push-to-talk communication for the first client is configured to facilitate a wireline push-to-talk communication for the first client.

70. (Previously Presented) The apparatus of claim 66, further comprising:
means for automatically authenticating the first client in response to receiving the SIP message from the first client.

71. (Previously Presented) The apparatus of claim 70, wherein the means for automatically authenticating the first client comprise means for interfacing with an authentication server.

72. (Previously Presented) The apparatus of claim 66, further comprising: means for automatically decompressing the SIP message in response to receiving the SIP message from the first client.

73. (Previously Presented) The apparatus of claim 66, further comprising: means for compressing the SIP message from the first client to generate a compressed SIP communication.

74. (Previously Presented) The apparatus of claim 73, further comprising: means for sending the compressed SIP communication.

75. (Previously Presented) The apparatus of claim 66, further comprising: means for automatically publishing presence information about the first client in response to receiving the SIP message from the first client.

76. (Currently Amended) A tangible computer readable medium with logic stored thereon that, responsive to execution of which by a network element, causes the network element to perform operations comprising:

determine that the first client is registered with the network element;

receiving a session initiation protocol (SIP) message destined for a first client, wherein the SIP message is configured to facilitate a push-to-talk communication for the first client;

storing a value of a local domain; and

in response to determining that the first client is registered with the network element:

determining whether or not the push-to-talk communication is local based on the stored value of the local domain₁[[;]]

responsive to determining the push-to-talk communication is not local, determining a first SIP proxy serving the first client₁[[;]] and

routing the SIP message to the first client via the first SIP proxy.

77. (Previously Presented) The tangible computer readable medium of claim 76, wherein the first SIP proxy comprises a plurality of SIP proxies, and wherein the

operations further comprise:

assigning at least some of the plurality of SIP proxies to different push-to-talk domains of a plurality of push-to-talk domains.

78. (Previously Presented) The tangible computer readable medium of claim 76, wherein the SIP message facilitating a push-to-talk communication for the first client is configured to facilitate a wireless push-to-talk communication for the first client.

79. (Previously Presented) The tangible computer readable medium of claim 76, wherein the SIP message facilitating a push-to-talk communication for the first client is configured to facilitate a wireline push-to-talk communication for the first client.

80. (Previously Presented) The tangible computer readable medium of claim 76, wherein the operations further comprise:

automatically authenticating the first client in response to receiving the SIP message from the first client.

81. (Previously Presented) The tangible computer readable medium of claim 80, wherein the automatically authenticating the first client comprises using an authentication server.

82. (Previously Presented) The tangible computer readable medium of claim 76, wherein the operations further comprise: automatically decompressing the SIP message in response to receiving the SIP message from the first client.

83. (Previously Presented) The tangible computer readable medium of claim 76, wherein the operations further comprise: compressing the SIP message from the first client to generate a compressed SIP communication.

84. (Previously Presented) The tangible computer readable medium of claim 83,

wherein the operations further comprise:

 sending the compressed SIP communication.

85. (Previously Presented) The tangible computer readable medium of claim 76, wherein the operations further comprise: automatically publishing presence information about the first client in response to receiving the SIP message from the first client.